

Castlemaine Naturalist

July 2019

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Monthly newsletter of the
Castlemaine Field Naturalists Club Inc.



Cortinarius kula, Wombat forest - photo by Geraldine Harris

Jelly Ears and Devils Tooth – a foray in Fungal Realms

Peter Turner

A large and very appreciative audience of members and visitors was presented with a broad view of the essential role that fungi play in the natural world when Alison Pouliot spoke at our June meeting. There are cultures that revere fungi – the mycophiles – while others, notably many English speakers, fear them – the mycophobes. While most of us know mushrooms and other reproductive forms of fungi, arguably the most important and fascinating aspects of fungi is the vast network of underground mycelia, covering areas from a few square centimetres to thousands of hectares.

Trees and plants need water and nutrients from soils, but their roots are not as effective as we might expect at penetrating into the fine soil particles. Evolution has resulted in development of mutually beneficial cooperation between plants and fungal mycelia, made up of a network of microscopic hyphae. Alison illustrated this ecological mycorrhizal relationship using a plastic tube (a fine tree root magnified 200 times) and a network of pantyhose, starting wrapped around the “rootlet”, and spread around the room amongst us - see photo. The mycelia produce fungal enzymes that break down dead organic matter, providing nutrients for the tree which returns the favour by supplying the fungi with sugars. The network of mycelia improves soil structures and water retention. But many broad acre monoculture agricultural practices can disrupt the mycelial network through fertilisers, soil disturbance and compaction, and waterlogging through irrigation. Our relatively recent understanding of the role of fungi in maintaining healthy soils and nutrients for plants is leading to changes in farming practices.

It's only two decades since the publication of the studies in Canadian forests showing that groups of trees can be connected through the mycelial network and can “assist” weaker trees through this “Wood Wide Web” by sharing nutrients. Ecosystems from Thursday Day Island to Southern Tasmania reveal an amazing diversity of fungi, with individual trees linked to many different fungi. Fungi are found from deserts to high alps. Alison outlined these and other aspects of the Fungal

Realm, before taking questions while a slide show of her stunning photographs illustrating many different kinds of fungi.

In her 2018 book “The Allure of Fungi” Alison has written about her studies of fungi during northern and southern autumns, of the wide range of people who study and forage for fungi, and of her concerns that the critical importance of this essential life form be better recognised and taken into account in our agricultural, forestry and conservation practices. Copies of the book were available after the meeting.

[For more on fungi, see Geraldine Harris’s article “About Fungi” in the June issue of *Castlemaine Naturalist*]

Alison simulating a “Mycorrhizal web”
[Photo by Dianne Thompson]



Indigenous plantings in Campbells Creek

Judy Hopley, Volunteer with FoCC

At a recent wildflower working bee, Friends of Campbells Creek Landcare Group volunteers planted 345 indigenous plants at the Honeycomb Road entrance to the Campbells Creek Trail.

The group hope to re-establish some of the wildflowers species that are now absent from this area. Decent falls of rain since the planting mean that good establishment is anticipated. The Loddon Prison Landmate team will finish the fencing in the next few days so the plants can prosper without needing individual guards against marauding kangaroos, wallabies, hares and rabbits.

If you are interested in what was planted, there’s a list of the 23 species at:

<http://www.focc.org.au/Listing/PlantingAtHoneycombBR.html>.

The plant names hyperlink to on-line photos so you can see what they look like in flower. Some of these plants are ideal choices for gardens!



Two of the everlasting daisies listed have become more difficult to name properly: ‘Common’ Everlasting (*Chrysocephalum apiculatum*) has now been split into 29

subspecies. Our local forms most likely belong to subsp. *apiculatum* or subsp. *congestum* (perhaps both).

Clustered Everlasting (*Chrysocephalum semipapposum*) has similarly been split into five subspecies. Our local forms most likely belong to one or more of subsp. *asperum*, subsp. *brevifolium*, or subsp. *Semipapposum*. For these two everlastings, it won't be known what subspecies were planted until after they flower.

Keep an eye on the patch in the coming months as it is hoped that it will provide a profusion of prettiness!

Fungi hunting at Lyonville Springs

Peter Turner (photos by Geraldine Harris)



Right -
Gayle at work

Our July excursion was led by Gayle Osborne (Wombat Forestcare), who met us at Lyonville Springs at noon, kettle boiling for hot tea while we had an early lunch – and right next to us was a collection of small fungi on the trunk of a large tree. And more on another tree, and more on a large log on the ground..... There had been good rain recently, and many more species had emerged since Gayle had checked two weeks earlier.

After lunch Gayle led us back along the road south, finding lots of colourful fungi, each of which had to be photographed by most of us with Gayle's mirror's needed to view undersides of most species.

The excellent fold-out Wombat Forestcare



brochure “Fungi of the Wombat Forest and Macedon Ranges”, prepared by Alison Pouliot, was essential for identifying our sightings. We wandered off the road, where the impacts of recent planned burns were very evident. We turned back after being shown a thriving clump of Brush Club Moss – a Gondwanan relic – along the road cutting.

Walking back along the road to the cars, we met some fungi foragers - a different kind of fungi hunting. Thanks again to Gayle Osborne for another rewarding afternoon in the Wombat forest.

Lyonville Springs Gallery

Noel Young





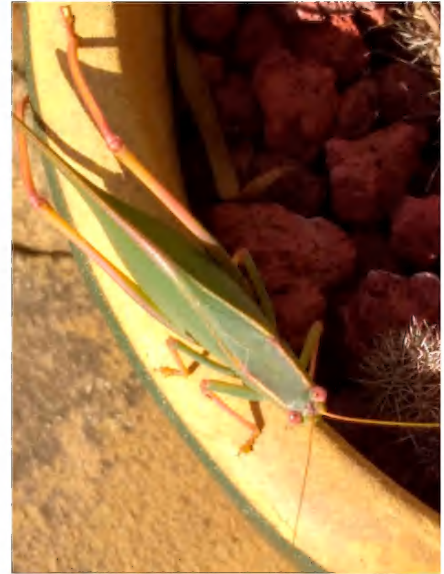
The above images represent less than half the species photographed on a very productive day. I have suggested names for some, but stand corrected by the experts. Thanks to Geraldine for the photo of me hard at work.

How are the insect numbers at your place?

The recent reports of world-wide reduction in insect populations were disturbing. Some of us have noticed that this year we have had low insect numbers. Anecdotal reports of fewer spiders (that feed on insects) and fewer insectivorous birds like Grey Fantails recorded in this year's surveys add to our concerns. Could members tracking the insects in and near to our homes provide useful data - a local "Insects in Backyards" program?

There are challenges: are there reasonably simple methods for estimating local insect populations? Which insect families should be studied? What about identification? We could have a regular item in the *Castlemaine Naturalist* reporting members' observations.

Are you interested in monitoring your local insects? Do you have suggestions about the issues raised above? Our speaker in July will be **Patrick Kavanagh**, whose stunning microphotographs of insects around his property appear on the *Natural Newstead* blog along with Geoff Park's bird photos. Patrick has noted fewer insects this year, so these ideas could be discussed during question time after his talk. Come prepared to contribute, or send your thoughts to the club's email address. We'll investigate options for survey methods that are realistic and practical for backyard use.



- Dianne Thomson and Peter Turner

The Birds of Sutton Grange - June

Nigel Harland

Eastern Spinebill, Wedge-tailed Eagle, Superb Fairy Wren, Red-browed Finch, White-browed Scrubwren, Australian Magpie, Australian Raven, Laughing Kookaburra, Yellow-tufted Honeyeater, Sulphur-crested Cockatoo, Long-billed Corella, Crimson Rosella, Striated Pardalote, Black-faced Cuckoo-Shrike, New Holland Honeyeater, Welcome Swallow, Red Wattlebird, Yellow-faced Honeyeater, House Sparrow, Grey Currawong, White-throated Treecreeper, Galah.

Observations

Denis Hurley –

June 4: 8 a.m. - 3 Crimson Rosella feeding on Drooping Cassinia at back porch.

June 5: Expedition Pass – 45 Eurasian Coot on the res. Most for many months, plus 1 Pacific Black Duck, 2 Purple Swamphen, 2 Little Black Cormorant, and a female Musk Duck.

Parks Vic. is attempting to save the two Red Gums at the "beach" parking area by placing soil behind a barrier about a metre high. Lets hope it works.

"Resident" visitors at home: Pair of Black Ducks, a pair of Wood Ducks; a pair of Sulphur-crested Cockatoos with a juvenile some mornings. A pair of Peaceful Doves frequent the back area most of the day.

SEANA in Castlemaine Oct 4th -7th

Preparations for the SEANA gathering in October continue, with many of the excursions to be held over the weekend decided, thanks to those who have agreed to lead them and assist the leaders.

We will be based at Campbells Creek Community Centre, starting from 3 pm on Friday 4th, to welcome participants, and issue “show bags” with final details of the program and information about Castlemaine and our region. Participants will register for the excursions they wish to go on, and return to the Centre for the catered evening buffet meal starting at 6 pm, followed by a talk by Geoff Park.

On Saturday 5th and Sunday 6th the excursions will leave from the Community Centre, with some full day outings and some half day. The evening buffet meal on Saturday will be followed by a talk by Tim Entwisle, Director of RBG Victoria (who was a speaker last time SEANA was held in Castlemaine – 21 years ago). Those staying until Monday are invited to join us at the Five Flags for a pub meal on Sunday night, before a final excursion on Monday morning.

The First Circular, with initial information about the program, and the Registration Form, are now available on the club’s website

<https://castlemainefnc.wordpress.com/seana/>. Castlemaine FNC members who plan to attend are asked to register soon – we hope to have registrations in by 2nd August. The registration fee (\$40) covers hire of the Community Centre over the weekend and other running costs.

Members have already offered to assist by leading excursions or assisting excursion leaders. There will be a range of tasks over the weekend, including welcoming our visitors from across the state on Friday, maintaining a presence at the Community Centre during the days, setting up the hall and cleaning up on the Monday afternoon – your committee will be seeking your help!

The FN Network at work!

At the May 2019 meeting Anne van Gemert had a W.A. plant sample she wanted identified. Afterwards Anne sent me a photo of the tree she had taken north of Busselton. At home I looked at *Melaleuca*’s, and thought perhaps it was *M. Alsophila* but somewhere along the way I came across a photo of *Agonis flexuosa* and wrote that down with a question mark beside it.

A day later I sent a photo of the tree and the plant sample to Jolanda Keeble, a W.A. field naturalist we met on the 2016 ANN Get-together. Straight away I received a reply that she thought it was a Peppermint Tree - *Agonis flexuosa*!

- Geraldine Harris



Disclaimer: The opinions expressed in this newsletter are those of the contributors and not necessarily those of the club

Castlemaine Field Naturalists

Coming events

Fri July 12 Meeting: speaker PATRICK KAVANAGH on the insect world

Sat July 13 field trip: Fryers Ridge? (tbd)

3-4 August – Swift Parrot & Regent Honeyeater survey weekend

Fri August 9 Meeting: speaker PAUL BATES (DELWP)

VISITORS ARE WELCOME AT CLUB ACTIVITIES

General meetings - (second Friday of each month, except January) are held in the Uniting Church (UCA) Hall (enter from Lyttleton St.) at 7.30 pm.

Field Trips - (Saturday following the general meeting) leave from the car park opposite Castle Motel, Duke Street at 1.30pm sharp unless stated otherwise. BYO morning and/or afternoon tea. Outdoor excursions are likely to be cancelled in extreme weather conditions. There are NO excursions on total fire ban days.

Business meetings - third Thursday of each month, except December, at George Broadways; 24a Greenhill Ave., at 6.00 pm. Members are invited to attend.

Club website (Web master: Chris Timewell) - <http://castlemainefnc.wordpress.com/>

Subscriptions for 2019

Ordinary membership: Single \$35, Family \$50

Pensioner or student: Single \$25, Family \$30

Subscription includes postage of the monthly newsletter, Castlemaine Naturalist

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